

**IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/539,983
Applicants : Demetri GIANNOPoulos et al.
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Title: CONFIGURATION OF WIRELESS-CONTROLLED
LIGHTING SYSTEM

APPEAL BRIEF

U.S. Patent and Trademark Office
Customer Window, Mail Stop **Appeal Brief - Patents**
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Sir:

In response to the FINAL Office Action dated 4 October 2007, finally rejecting pending claims 2-12 and 14-20, and in support of the Notice of Appeal filed on 3 January 2008, Applicants hereby respectfully submit this Appeal Brief.

REAL PARTY IN INTEREST

According to an assignment recorded at Reel 017445, Frame 0996, Koninklijke Philips Electronics N.V., owns all of the rights in the above-identified U.S. patent application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences related to this application or to any related application, nor will the disposition of this case affect, or be affected by, any

other application directly or indirectly.

STATUS OF CLAIMS

Claims 1 and 13 are canceled, and claims 2-12 and 14-20 are pending.

Claims 2-12 and 14-20 are rejected.

Accordingly, the claims on Appeal are claims 2-12 and 14-20.

STATUS OF AMENDMENTS

There are no pending amendments with respect to this application.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is directed to a method of configuring a wireless-controlled lighting system.¹

Accordingly, as broadly recited in claim 1, in a wireless-controlled lighting system (FIG. 1; page 4, line 4) including a control master (FIG. 1 – LCM; page 4, line 5) and a group of lighting units (FIG. 1 – B; page 4, line 15), all communicating via commonly-received wireless transmissions (FIG. 1 – L_{WL}; page 4, lines 14-15), a method is provided for associating the group of lighting units, each having a unique identification code (page 7, line 3), with respective control elements of a remote control (FIG. 1 – R) (page 7, lines 5-6). The method comprises: (a) each of the lighting units transmitting a modulated light signal carrying the respective identification code (FIG. 4 – step 40; page 7, lines 8-9); (b) positioning the remote control at a location where it receives the modulated light signal from only one of the lighting units (FIG. 4 – step 42; page 7, line 23 – page 8, line 1); (c) activating a selected one of the control elements of the remote control (FIG. 4 – step 42; page 8, line 1) to associate said control element with the lighting unit transmitting the

1 In the description to follow, citations to various reference numerals, figures, and corresponding text in the specification are provided solely to comply with Patent Office rules. It should be understood that these reference numerals, figures, and text are exemplary in nature, and not in any way limiting of the true scope of the claims. It would therefore be improper to import anything into any of the claims simply on the basis of **exemplary** language that is provided here only under the obligation to satisfy Patent Office rules for maintaining an Appeal.

modulated light signal being received (FIG. 4 – step 42; page 8, line 2); (d) transmitting from the remote control to the control master a signal identifying the unique identification code for the lighting unit and the control element with which said lighting unit has been associated (FIG. 4 – step 43; page 8, lines 3-5); and (e) repeating each of steps (b) through (d) for each of the remaining lighting units in the group (FIG. 4 – step 45; page 8, lines 7-8), where each lighting unit in the group includes an adaptable device which selectively operates as either a control master device or a slave device (page 9, lines 3-5).

As broadly recited in claim 3, the method further features the remote control selecting one of the adaptable devices to operate as the control master for the group of lighting units (FIG. 4, step 41a; page 9, lines 12-17).

As broadly recited in claim 5, the method further features the unique identification code being assigned to each lighting unit when the lighting unit is installed in the system (page 7, lines 3-5).

As broadly recited in claim 11, a method is provided for configuring a wireless-controlled lighting system (FIG. 1; page 4, line 4) including a group of lighting units (FIG. 1 – B; page 4, line 15), each having a unique identification code (page 7, line 3), and a remote control (FIG. 1 – R; page 4, line 16), all communicating via commonly-received wireless transmissions (FIG. 1 – L_{WL} ; page 4, lines 14-15). The method comprises: using the remote control to select one of the lighting units to be a control master (FIG. 1 – LCM; page 4, line 5) for the system (FIG. 4, step 41a; page 9, lines 12-17); (a) emission by each of the lighting units of a modulated light signal carrying the respective identification code (FIG. 4 – step 40; page 7, lines 8-9); (b) positioning of the remote control at a location where it receives the modulated light signal from only one of the lighting units (FIG. 4 – step 42; page 7, line 23 – page 8, line 1); (c) activation of a selected one of a plurality of control elements of the remote control (FIG. 4 – step 42; page 8, line 1) to associate said selected control element with the lighting unit transmitting the modulated light signal being received (FIG. 4 – step 42; page 8, line 2); (d) transmission from the remote control to the control master for the system of a signal identifying the unique identification code for the lighting unit and the control element with which said lighting unit has been associated

(FIG. 4 – step 43; page 8, lines 3-5); and (e) repeating each of steps (b) through (d) for each of the remaining lighting units in the group (FIG. 4 – step 45; page 8, lines 7-8).

As broadly recited in claim 12, the method further features each lighting unit in the group including an adaptable device which selectively operates as either a control master device or a slave device (page 9, lines 3-5).

As broadly recited in claim 15, the method further features the unique identification code being assigned to each lighting unit when the lighting unit is installed in the system (page 7, lines 3-5).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on Appeal are: (1) the rejections of claims 2-7, 11, 12, and 14-17 under 35 U.S.C. § 103 over Grouev et al. U.S. Patent 6,333,605 (“Grouev”) in view of Morgan et al. U.S. Patent Publication 2002/0171378 (“Morgan”); (2) the rejections of claims 5 and 15 under 35 U.S.C. § 103 over Grouev in view of Morgan and further in view of Denes U.S. Patent 7,123,140 (“Denes”); (3) the rejections of claims 8-9 and 18-19 under 35 U.S.C. § 103 over Grouev in view of Morgan and further in view of Ben-Ze’ev U.S. Patent 6,791,467 (“Ben-Ze’ev”); and (4) the rejections of claims 10 and 20 under 35 U.S.C. § 103 over Grouev in view of Morgan and further in view of Hou U.S. Patent Publication 2002/026035 (“Hou”).

ARGUMENTS

(1) Claims 2-7, 11, 12 and 14-17 Are All Patentable Over Grouev and Morgan

Claim 2

Among other things, the method of claim 2 includes operations of three elements: (A) a group of lighting units; (B) a control master; and (C) a remote control.

The Examiner cites: (A) Grouev’s ballasts 10 and associated lamp as supposedly corresponding to the group of lighting units (FINAL Office Action at page 3, line 7); (B) Grouev’s wall-mounted controller as corresponding to the control master (FINAL Office Action at page 3, lines 5-6); and (C) Grouev’s handheld infra-

red transmitter as corresponding to the remote control (FINAL Office Action at page 3, line 10).

Among the features recited in claim 2 are: (1) each lighting unit includes an adaptable device which selectively operates as either a control master device or a slave device; (2) the control master and the lighting units all communicate via commonly-received wireless transmissions; and (3) the lighting units are associated with respective control elements of the remote control.

Applicants respectfully submit that no combination of Grouev and Morgan would ever produce any of these features.

As to feature (1), Morgan discloses an arrangement “*where light sources . . . can act as a master to control one or more other slave light sources.*” However, Morgan does not disclose that the light sources include an adaptable device which selectively operates as either a control master device or a slave device. Nor is any such feature “inherent” in Morgan. Morgan never discloses that when a light source is not acting as a master, it acts a slave. Morgan merely teaches that ONE device may be a master, and the OTHER devices may be slaves. Morgan never teaches that any one single device selectively could be configured to be either a master or a slave. Without any such teaching or suggestion that any one, single device selectively could be either a master or a slave, then no adaptable device could possibly be “inherent” in Morgan.

As to feature (2), neither Grouev nor Morgan discloses that the control master and the lighting units all communicate via commonly-received wireless transmissions. In the FINAL Office Action, the Examiner does not even bother to try to cite anything in Grouev or Morgan that discloses that a control master and the lighting units all communicate via commonly-received wireless transmissions.

In the Advisory Action, the Examiner argues for the first time that: Grouev’s handheld infra-red transmitter can communicate with Grouev’s wall-mounted controller; and Grouev’s handheld infra-red transmitter can communicate with Grouev’s ballasts 10; and that means that Grouev’s wall-mounted controller and ballasts 10 communicate via commonly-received wireless signals. Applicants respectfully submit that this is not a reasonable interpretation of the claim language

that “*a control master and a group of lighting units all communicat[e] via commonly-received wireless transmissions.*” Furthermore, Applicants respectfully submit that NONE of the communications identified by the Examiner use any “**commonly-received**” wireless signal. Namely, Grouev’s handheld infra-red transmitter communicates one-at-a-time with Grouev’s wall-mounted controller and Grouev’s ballasts 10 with individually-received infrared signals. In none of these communications are there any commonly-received wireless signals.

As to feature (3) Grouev does not disclose that the handheld infra-red transmitter includes any control elements, or that any lighting units are associated with any such control elements. No such control elements are mentioned at col. 5, lines 42-43 of Grouev, cited in the FINAL Office Action, nor is there any mention in the text of associating any lighting units with any such control elements.

Now in the Advisory Action, the Examiner has apparently decided that this feature is not disclosed by the cited text at col. 5, lines 42-43 of Grouev, but instead: (1) the feature is inherent in Grouev (stating that Grouev “*has to have*” this feature); (2) it is “well-known in the art” to modify Grouev’s actual teachings to include this feature; and/or (3) Morgan discloses this feature.

Applicants respectfully submit that the Examiner’s shotgun approach to examining Applicants’ claim 2 misses the mark and fails to establish a *prima facie* case of obviousness under 35 U.S.C. § 103. First, Applicants are confident that the Board can and will properly apply the inherency standard from cases such as In re Robertson, 169 F.3d 743, 49 USPQ2d 1949 (Fed. Cir. 1999) to easily determine that there is absolutely nothing in Grouev which **necessitates** activating a selected control element of a remote control to associate the control element with a lighting unit transmitting a modulated light signal being received. Second, the Examiner has proffered no evidence in support of his naked assertion that it would have been well known in the art of lighting systems a the time the invention was made to activate a selected control element of a remote control to associate a control element with a lighting unit transmitting a modulated light signal being received by the remote control. Such naked assertions and statements that lack the support of objective evidence cannot support a rejection under 35 U.S.C. § 103. In re Zurko, 258 F.3d

1379, 1385, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Third, it is apparent through a simple reading of the cited paragraphs [0118] – [0121] that Morgan teaches that the selectors 60A through 60D are associated with “*respective pre-programmed illumination programs*” (see, e.g., paragraph [0120] at lines 13-16) and absolutely not associated with any individual lighting units.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 2 is patentable over the cited art.

Claim 3

Claim 3 depends from claim 2 and is deemed patentable for at least the reasons set forth above with respect to claim 2, and for the following additional reasons.

Among other things, in the method of claim 3, the remote control selects one of the adaptable devices to operate as the control master for the group of lighting units.

The Examiner states that Morgan discloses that lighting devices are controlled using “*a remote controller (remote interface 56)*” and one light source could act as a master to control other light sources.

So what? That is not what is recited in claim 3. Claim 3 recites that the remote control selects one of the adaptable devices to operate as the control master for the group of lighting units. Morgan does not disclose any adaptable device. Morgan also does not disclose that “remote interface 56” selects an adaptable device to operate as the control master for the group of lighting units.

Also, the Examiner states that discovering optimum or workable ranges involves only “routine” skill in the art.

Again . . . so what? Claim 3 very clearly does not recite any “ranges” – optimum, workable, or otherwise. Claim 3 recites a specific feature that is clearly not disclosed by any of the cited references or any combination thereof, and could only be found by the Examiner through impermissible hindsight reconstruction using Applicants’ own teachings.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 3 is patentable over the cited art.

Claim 4 and 6-7

Claims 4 and 6-7 depend from claim 1 and are deemed patentable for at least the reasons set forth above with respect to claim 1.

Claim 5

Among other things, in the method of claim 5 a unique identification code is assigned to each lighting unit when the lighting unit is installed in the system.

The Examiner states in the FINAL Office Action at page 5, lines 18-20 that “*Grouev disclose that the unique identification code is determined at the time of association of the control element with the respective lighting unit*” (citing col. 2, lines 24-27).

The Examiner also states in the FINAL Office Action at page 9, lines 8-11 that the combination of Grouev and Morgan “*fails to explicitly disclose that the identification is assigned to each lighting unit when the lighting unit is installed in the system.*”

Applicants respectfully submit that the Examiner got it right the second time. More specifically, Applicants respectfully submit that the combination of Grouev and Morgan does not disclose that a unique identification code is assigned to each lighting unit when the lighting unit is installed in the system. Indeed, the cited text at col. 2, lines 24-27 of Grouev very specifically teaches the opposite - that the unique ID is preassigned in the factory.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 5 is patentable over Grouev and Morgan.

Claim 11

Among the features recited in claim 11 are: (1) the remote control transmitting to the control master a signal identifying the unique ID code for each lighting unit AND a control element with which it has been associated; (2) using a remote control to select one of the lighting units to be a control master for the system; and (3) associating the lighting units with respective control elements of the remote control.

Applicants respectfully submit that no combination of Grouev and Morgan would ever produce these features.

As to feature (1), Applicants respectfully submit that the cited text in Grouev at col. 5, lines 58-61 does not disclose that the remote control transmits to the control master a signal identifying the unique ID code for each lighting unit and the control element (of the remote control) with which it has been associated.

The Examiner fails to even mention this point in the Advisory Action.

As to feature (2), the Examiner states that Morgan discloses that lighting devices are controlled using “a *remote controller (remote interface 56)*” and one light source could act as a master to control other light sources.

So what? That is not what is recited in claim 11. Claim 11 recites that the remote control selects one of the adaptable devices to operate as the control master for the group of lighting units. Morgan does not disclose any adaptable device. Morgan also does not disclose that “remote interface 56” selects an adaptable device to operate as the control master for the group of lighting units.

Also, the Examiner states that discovering optimum or workable ranges involves only “routine” skill in the art.

Again . . . so what? Claim 11 very clearly does not recite any “ranges” – optimum, workable, or otherwise. Claim 11 recites a specific feature that is clearly not disclosed by any of the cited references or any combination thereof, and could only be found through impermissible hindsight reconstruction using Applicants’ own teachings.

As to feature (3) Grouev does not disclose that the handheld infra-red transmitter includes any control elements, or that any lighting units are associated with any such control elements. No such control elements are mentioned in the cited text at col. 5, lines 42-43, nor is there any mention in the text of associating any lighting units with any such control elements. Nor do any of the “shotgun arguments” newly raised by the Examiner for the first time in the Advisory Action establish that such a feature is disclosed by any combination of Grouev and Morgan. Applicants have already explained this in detail above with respect to claim 2.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 11 is patentable over the cited art.

Claim 12

Claim 12 depends from claim 11 and is deemed patentable for at least the reasons set forth above with respect to claim 11, and for the following additional reasons. Among other things, in the method of claim 12, each lighting unit in the group includes an adaptable device which selectively operates as either a control master device or a slave device. As explained above with respect to claim 2, no combination of Grouev and Morgan could ever produce a method that includes this feature.

Accordingly, for at least this additional reason, Applicants respectfully submit that claim 12 is patentable over the cited art.

Claim 14 and 16-17

Claims 14 and 16-17 depend from claim 11 and are deemed patentable for at least the reasons set forth above with respect to claim 11.

Claim 15

Among other things, in the method of claim 15 a unique identification code is assigned to each lighting unit when the lighting unit is installed in the system. As explained above with respect to claim 5, Applicants submit that the combination of Grouev and Morgan does not disclose that a unique identification code is assigned to each lighting unit when the lighting unit is installed in the system.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claim 15 is patentable over Grouev and Morgan.

(2) Claims 5 and 15 Are Patentable Over Grouev, Morgan and Denes

At the outset, Applicants note that claims 5 and 15 depend respectively from claims 1 and 11. Applicants also submit that Denes does not remedy the shortcomings of Grouev and Morgan as set forth above with respect to claims 1 and 11. Therefore, claims 5 and 15 are deemed patentable over any combination of Grouev, Morgan and Denes for at least the reasons set forth above with respect to claims 1 and 11, and for the following additional reasons.

Applicants respectfully traverse the proposed modification of Grouev and Morgan as lacking any reason or suggestion in the art to make the modification. The

Office Action states that it would have been obvious to modify Grouev to assign an ID when a lighting unit is assigned “*in order to replace the default identification number in the node (lighting unit) and assign a (sic) identification number which is unique to only one node since multiple nodes can have a same default identification numbers (sic) assigned by the manufacture (sic).*”

Applicants respectfully submit that this makes no sense. In Grouev’s system, multiple nodes of lighting units do not have a “*default identification number*.” Indeed, Grouev specifically teaches that the manufacturer assigns a unique ID to every ballast at the factory (see col. 2, lines 16-17, and 24-28). So there are no “*default IDs*” to be replaced in Grouev’s system, and there is therefore not any reason to “*replace the (non-existent) default identification number in the node*” in Grouev’s system.

Accordingly, Applicants respectfully traverse the proposed modification of Grouev and Morgan with any features of Denes as lacking any reason or suggestion in the art to make the modification.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claims 5 and 15 are patentable over Grouev, Morgan and Denes.

(3) Claims 8-9 & 18-19 Are All Patentable Over Grouev, Morgan and Ben-Ze’ev

Claims 8, 9, 18 and 19 depend variously from claims 1 and 11. Applicants submit that Ben-Ze’ev does not remedy the shortcomings of Grouev and Morgan as set forth above with respect to claims 1 and 11. Therefore, claims 8, 9, 18 and 19 are deemed patentable over any combination of Grouev and Morgan and Ben-Ze’ev for at least the reasons set forth above with respect to claims 1 and 11.

(4) Claims 10 & 20 Are All Patentable Over Grouev, Morgan and Hou

Claims 10 and 20 depend respectively from claims 1 and 11. Applicants submit that Hou does not remedy the shortcomings of Grouev and Morgan as set forth above with respect to claims 1 and 11. Therefore, claims 10 and 20 are deemed patentable over any combination of Grouev and Morgan and Hou for at least the reasons set forth above with respect to claims 1 and 11.

CONCLUSION

For all of the foregoing reasons, Applicants submit that claims 2-12 and 14-20 are all patentable over the cited prior art. Therefore, Applicants respectfully request that the rejections of claims 2-12 and 14-20 be withdrawn, the claims be allowed, and the application be passed to issue.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Cancelled)
2. (Previously Presented) In a wireless-controlled lighting system including a control master and a group of lighting units, all communicating via commonly-received wireless transmissions, a method of associating said group of lighting units, each having a unique identification code, with respective control elements of a remote control, said method comprising:
 - a. each of the lighting units transmitting a modulated light signal carrying the respective identification code;
 - b. positioning the remote control at a location where it receives the modulated light signal from only one of the lighting units;
 - c. activating a selected one of the control elements of the remote control to associate said control element with the lighting unit transmitting the modulated light signal being received;
 - d. transmitting from the remote control to the control master a signal identifying the unique identification code for the lighting unit and the control element with which said lighting unit has been associated;
 - e. repeating each of steps b through d for each of the remaining lighting units in the group,
where each lighting unit in the group includes an adaptable device which selectively operates as either a control master device or a slave device.
3. (Previously Presented) A method as in claim 2 where the remote control selects one of the adaptable devices to operate as the control master for the group of lighting units.
4. (Previously Presented) A method as in claim 2 where the unique identification code is pre-assigned.

5. (Previously Presented) A method as in claim 2 where the unique identification code is assigned to each lighting unit when the lighting unit is installed in the system.

6. (Previously Presented) A method as in claim 2 where each of the lighting units transmits the modulated light signal for a predetermined period after said lighting unit is powered up.

7. (Previously Presented) A method as in claim 2 where the modulated light signal comprises light emitted by the lighting unit for illumination.

8. (Previously Presented) A method as in claim 2 where the selected control element comprises a button on the remote control.

9. (Previously Presented) A method as in claim 2 where the selected control element comprises a symbol on a touch screen of the remote control.

10. (Previously Presented) A method as in claim 2 where the selected control element comprises a sound produced by a user.

11. (Previously Presented) A method of configuring a wireless-controlled lighting system including a group of lighting units, each having a unique identification code, and a remote control, all communicating via commonly-received wireless transmissions, said method comprising:

using the remote control to select one of the lighting units to be a control master for the system;

a. emission by each of the lighting units of a modulated light signal carrying the respective identification code;

b. positioning of the remote control at a location where it receives the modulated light signal from only one of the lighting units;

c. activation of a selected one of a plurality of control elements of the remote control to associate said selected control element with the lighting unit transmitting the modulated light signal being received;

d. transmission from the remote control to [[a]]the control master for the system of a signal identifying the unique identification code for the lighting unit and the control element with which said lighting unit has been associated; and

e. repeating each of steps b through d for each of the remaining lighting units in the group.

12. (Previously Presented) A method as in claim 11 where each lighting unit in the group includes an adaptable device which selectively operates as either a control master device or a slave device.

13. (Canceled)

14. (Previously Presented) A method as in claim 11 where the unique identification code is preassigned.

15. (Previously Presented) A method as in claim 11 where the unique identification code is assigned to each lighting unit when the lighting unit is installed in the system.

16. (Previously Presented) A method as in claim 11 where each of the lighting units transmits the modulated light signal for a predetermined period after said lighting unit is powered up.

17. (Previously Presented) A method as in claim 11 where the modulated light signal comprises light emitted by the lighting unit for illumination.

18. (Previously Presented) A method as in claim 11 where the selected control element comprises a button on the remote control.

19. (Previously Presented) A method as in claim 11 where the selected control element comprises a symbol on a touch screen of the remote control.

20. (Previously Presented) A method as in claim 11 where the selected control element comprises a sound produced by a user.

EVIDENCE APPENDIX

{None}

RELATED PROCEEDINGS APPENDIX

{None}